

U.S. Department of the Interior
Bureau of Land Management

Final Environmental Assessment
DOI-BLM-NV-L010-2012-0028-EA
September 6, 2012

BSEM White River Oil Well Project

Lease No. NVN 86657
BSEM Federal # 1-35

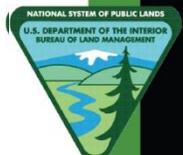
And

Lease No. NVN 86605
BSEM Federal # 1-14

White River Valley
Nye County, Nevada

Applicant/Address:
Bright Sky Energy & Minerals, Inc.
17501 Rimrock Drive
Golden, Colorado 80401

Ely District Office
Ely, Nevada
Phone: (775) 289-1800
Fax: (775) 289-1910



BSEM White River Oil Well Project

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1.0 INTRODUCTION

Bright Sky Energy & Minerals, Inc. (BSEM) proposes to drill a wildcat exploration oil well, BSEM Federal 1-35, in White River Valley, Nye County, Nevada. Should this well be successful, a second well, BSEM Federal 1-14 may be drilled approximately two miles south of this first well.

An Environmental Assessment (EA) is a site-specific analysis of potential impacts that could result with the implementation of a proposed action or alternatives to the proposed action. The EA assists the Bureau of Land Management (BLM) in project planning and ensuring compliance with the National Environmental Policy Act (NEPA), and in making a determination as to whether any “significant” impacts (per 40 CFR 1508.27) could result from the analyzed actions.

This document is tiered to, and incorporates by reference, the *Ely Proposed Resource Management Plan/Final Environmental Impact Statement* (RMP/EIS) released in November 2007. Should a determination be made that implementation of the proposed or alternative actions would not result in “significant environmental impacts” or “significant environmental impacts beyond those already disclosed in the existing NEPA document”, a FONSI will be prepared to document that determination.

1.1 Background

On January 17, 2012, the Egan Field Office of the Bureau of Land Management received Notices of Staking from Bright Sky Energy & Minerals, Inc. (BSEM) to drill two oil wells in White River Valley: BSEM Federal 1-35 (the north well) in Section 35, T. 08 N., R. 61 E., MDBM; and BSEM Federal 1-14 (the south well) in Section 14, T. 07 N., R. 61 E., MDBM (**Figure 1**).

A pre-drill, onsite visit was held on February 9, 2012, to inspect the existing roads, proposed new roads, and the well locations in order to evaluate the potential for any detrimental effects to cultural resources, wildlife, or other site-specific resources. Subsequently, BSEM revised the access routes to take better advantage of an existing network of access roads that were constructed for previous oil wells drilled in the 1960’s and 1980’s. BSEM then filed an Application for Permit to Drill (APD) for BSEM Federal 1-35.

Depending on the results of the BSEM Federal 1-35 wildcat well, an APD may be submitted for the second well, BSEM Federal 1-14. This EA will analyze the potential effects of the proposed actions for both wells to better understand the maximum environmental effects of the project as a whole. Site-specific ground clearances would need to be completed and a Nye County Flood Damage Prevention Permit obtained prior to approval of a forthcoming APD for BSEM Federal 1-14.

1.2 Purpose of the Proposed Action

The BLM's purpose is to provide legitimate use of the public lands to the proponent for exploring and developing oil and gas leases. Legitimate uses are those that are authorized under the Federal Land Management Policy Act (FLPMA) of 1976 or other Public Land Acts and prevent undue and unnecessary degradation.

Drilling operations within present leases cannot be cancelled by the denial of an APD. The Mineral Leasing Law of 1920, as amended, allows areas to be leased for oil and gas exploration and development. Leasing areas are developed through BLM's planning process. The lessee has a right to drill for oil and gas within that lease as well as access to the proposed well site by a road. The selected route has to be reasonable and cause no undue degradation to the environment.

The purpose of the BSEM Federal 1-35 and BSEM Federal 1-14 wells are to test for oil. Should a discovery be made, the well(s) would be put into production with no additional ground disturbance. This NEPA analysis will evaluate both the exploration drilling and potential production of the BSEM Federal 1-35 and BSEM Federal 1-14 locations, if successful and desirable, subject to existing oil and gas regulations. A discovery may likely lead to additional drilling and perhaps development of a field, all of which would require additional NEPA analysis.

A right of way (ROW) would be required for 1,200 feet of the proposed access roads to the BSEM Federal 1-35 well location, since construction would take place both on and off the lease. The proposed new road requiring this ROW was included in the Surface Use Plan of the APD and is analyzed as part of the proposed action in this EA.

An existing gravel pit will be used to furnish gravel for surfacing the access roads and the well locations in order to provide all weather use, prevent rutting, and suppress fugitive dust. While the gravel will be sold under a mineral materials sales contract, the supporting environmental analysis is included in this EA.

1.3 Need for the Proposed Action

The need for the action is established by the BLM's responsibility under FLPMA to respond to a request of an Application for Permit to Drill (APD) for legal access to the well sites and a short segment of new road to be constructed across public land.

1.4 Decision To Be Made

The BLM will decide whether or not to authorize construction of drill pads and access roads to drill exploration oil wells and drill temporary water wells on leases, and if so, then under what terms and conditions. In addition, the BLM will decide whether or not to grant the ROW for construction of a portion on an access not on the oil and gas lease.

1.5 Conformance with BLM Land Use Plan(s)

The proposed action is in conformance with the Goals and Objectives of the Ely District Record of Decision and Approved Resource Management Plan (Ely RMP, BLM 2008) (P.92):

Goal: Allow for meeting the Nation's energy needs while providing environmentally responsible production of fluid leasable minerals, and geophysical exploration for energy resources on public lands.

Objective: To provide for the responsible development of mineral resources to meet local, regional, and national needs, while providing for the protection of other resources and uses.

The proposed action is also in conformance with the following program-specific management decisions (p. 94):

MIN-2: Open to Leasing – Allow leasing on approximately 6.0 million acres open to leasing subject to existing laws, regulations, and formal orders and the terms and conditions of the standard lease form.

In addition, review of management decisions for other resources and concerns that would possibly be impacted by the project was conducted, and it was determined that approval of the proposed action is in conformance with the Ely RMP.

1.6 Relationship to Statutes, Regulations, or other Plans

The proposed action is consistent with the Nye County Comprehensive/Master Plan (June 7, 2011). Section 3.4.2. (p.30) lists "*Mineral and Energy Resources Goal-1: To ensure mineral operations are consistent with best management practices for the protection of the environmental qualities and the multiple use of public lands. Objective 1 – Allow economically viable mineral formations in the county to be developed. Objective 2 – Identify areas of valuable mineral resources for future resource development.*"

The State Protocol Agreement between the BLM, Nevada and the Nevada State Historic Preservation Office for Implementing the National Historic Preservation Act (Revised January 2012) implements all laws, regulations and rules pertaining to Federal Archeological Resource Management.

1.7 Scoping and Public Involvement

BLM resource specialists scoped the proposed action internally on April 23, 2012. Resource concerns identified were, Soils, Vegetation resources, Mineral resources, Special status animal species, Special status plant species, Fish and wildlife, Sage Grouse Habitat, Cultural, Visual resources, Land use, Water resources (Water rights), Floodplains, Invasive Non-native Species, and Migratory Birds and Bald and Golden Eagles. Concerns have been addressed in Chapters 3 and 4 below. A public scoping period began June 15, 2012 and ended on June 30, 2012.

The preliminary EA was available for a 15-day public comment period from August 14, 2012 to August 31, 2012. All relevant comments received have been addressed in the EA and are a part of the Administrative Record. Tribal consultations letters went out on May 8, 2012. An onsite visit was requested by the Duckwater Shoshone Tribe which subsequently took place on June 18, 2012. No concerns were submitted.

2.0 DESCRIPTION OF ALTERNATIVES, INCLUDING PROPOSED ACTION

2.1 Introduction

The previous chapter presented the purpose and need for the proposed project, as well as, the relevant issues, i.e., those elements that could be affected by the implementation of the proposed project. The potential environmental impacts or consequences resulting from the implementation of the proposed action are analyzed in Chapters 3 and 4 for each of the identified issues.

2.2 Proposed Action

BSEM proposes to drill BSEM Federal 1-35, an exploration oil and gas well, on their lease, NVN-086657, in White River Valley, Nye County, Nevada. Depending on the results of this well, a second well, BSEM Federal 1-14, on lease NVN-086605, could be drilled. Both wells are for exploration of oil and gas resources and could be developed for production under this proposed action.

BSEM Federal 1-35 would consist of construction disturbance of an access road and well pad. BSEM Federal 1-14 would consist of construction disturbance of an access road and well pad.

Table 2.2(a)

BSEM Federal Well	Access Roads		Well Pad	Total Disturbance
	Length in Feet	Acres	Acres	Acres
1-35	6,500	4.5	4.0	8.5
1-14	7,700	5.3	4.0	9.3
Total	14,200	9.8	8.0	17.8

A map of the project area showing the location of the proposed oil wells, existing and constructed access roads, and the existing gravel source is shown in **Figure 1**.

a. Existing Roads

The project area is located approximately 60 miles south of Ely, Nevada, in Nye County. It can be reached from Ely by following US 6 West to the junction with State Route (SR) 318, then proceeding south through Lund for an additional 25 miles to the Shingle Pass Road junction.

A network of existing roads has been developed in the area since the 1960's to access four previously drilled oil wells from SR 318. As many as 10 miles of these roads, as shown in **Figure 1**, would be used during the project activities.

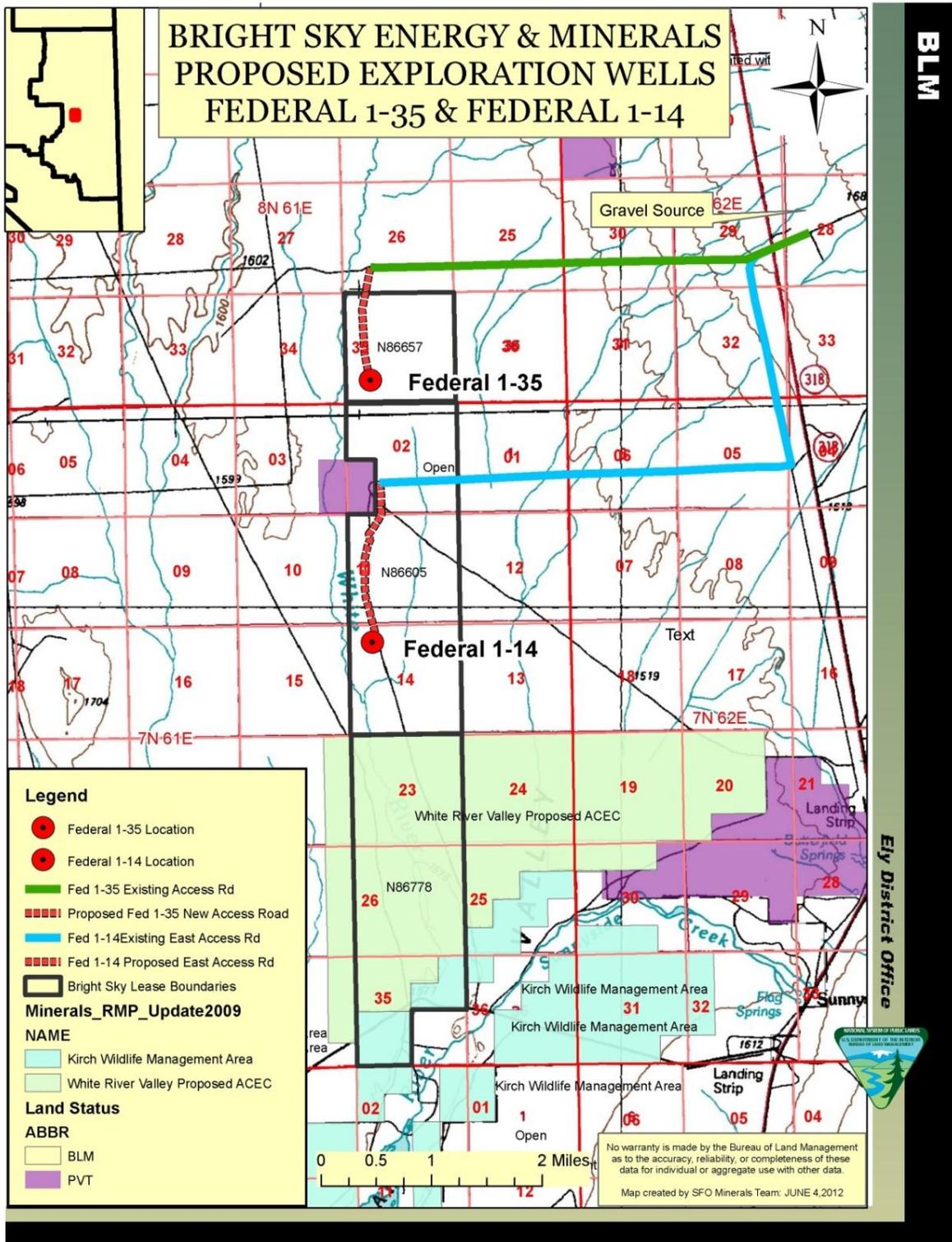


Figure 1: Location map of BSEM proposed exploration wells

Existing Access to 1-35. Four miles of existing access roads, color-coded green in **Figure 1**, would be travelled from the gravel source east of SR 318 to the junction of the new road to be constructed to BSEM Federal 1-35. This route was reconstructed and maintained to access three oil wells drilled between 1968 and 1981.

Existing Access to 1-14. Six miles of existing access roads, color-coded blue in **Figure 1**, would be travelled from the gravel source east of SR 318 to the junction of the new road to be constructed to BSEM Federal 1-14. This road was reconstructed to access an oil well, White River Valley #1, drilled in 1978, and currently provides access to private lands.



Figure 2: Photo of the existing access road, with a turnout, to BSEM Federal 1-35

All are graveled, crowned and ditched, and have turnouts spaced at approximately ½-mile intervals. No existing roads require widening or reconstruction. All would require minor maintenance consisting of spot repairs, light blading with a grader, and mowing brush from overgrown portions of the running surface and turnouts, as needed. Width of these roads measures approximately 30 feet or more from ditch to ditch, with 14 to 18 feet of gravel down the center. **Figure 2** is a photo of a portion of the existing access road with a turnout to BSEM Federal 1-35. The existing roads would be maintained in as good as or better condition than at present.

A temporary cattle guard would be installed at the turnoff from SR318, going west, to replace the gate along the fence line.

A nesting bird survey would be conducted within one week prior to initiating any road maintenance activities that would occur between April 15th and July 15th. Should nests be discovered, a buffer between 100 to 300 feet in size, depending on the species and type of activities, would be established, and the maintenance activities would be deferred until the nestlings have fledged.

If surface disturbance occurs between April 15th and July 15th, then a nesting bird survey would be conducted within one week before disturbance to locate nests. Nests will be avoided by a buffer of from 100 to 300 feet, depending on the species and the type of activity, until the nestlings have fledged.

b. New Access Roads

Access roads would be constructed to each of the two proposed well locations along the routes as shown in red on **Figure 1**. Construction techniques would be similar for both roads and result in a maximum width of disturbance of approximately 30 feet.

Table 2.2(b)

BSEM Federal	Roads length in feet			Acres	Gravel Depth (inches)	Turnouts	Cattle Guard	Fence Cut	Culverts
	Off Lease	On Lease	Total						
1-35	1,200	5,330	6,530	4.5	6-12	2	0	0	0
1-14	0	7,700	7,700	5.3	6-12	2	0	0	0

Construction techniques would follow the guidelines in Chapter 4 of the Gold Book for BLM Resource Roads. The routes would first be mowed with a brush hog to a width of 30 feet. Within this path, all available topsoil would be bladed off into windrows along the sides of the road. The roads would then be “crowned and ditched” as illustrated in **Figure 3**. Borrow ditches would be created by pulling material from the sides and drifting it to the center of the road thus, elevating the roadbed. Areas with wetter soils would require deeper ditches and higher crowns. Six to 12 inches of gravel would be spread over the middle 16-foot width of the road to create a 14 feet wide travel surface that would reduce dust and rutting. The furrowed topsoil would then re-spread across the two borrow ditches all the way to meet the road surface and be seeded immediately to curtail the introduction of invasive or noxious weeds. **Figure 4** shows a similarly constructed access road in the White River Valley area.

The location of the new access road for Federal 1-35 was selected along the river bench because if the road was located on top of the river terrace, it may impact cultural resources. Locating the new road on the river bottom may affect the alkali sacaton saline meadow vegetation in the area.

Approximately 200 feet of the southwestern end of the new access road to BSEM Federal 1-14 would be within the White River floodplain. This river bottom area is soft and may not support heavy machinery. It may be susceptible to mild flooding or ground saturation during spring melt and runoff. Therefore, this section of new road, the topsoil might not be salvaged and stockpiled. The road would be built up with gravel to an elevation of 30 inches above the floodplain.

Turnouts would be spaced at ½-mile intervals and add an addition 16 feet to the road width over a distance of 150 linear feet.

Reclamation would consist of removing all but four inches of gravel and returning it to the borrow pit. The remaining gravel would be ripped into the underlying native material and seeded.

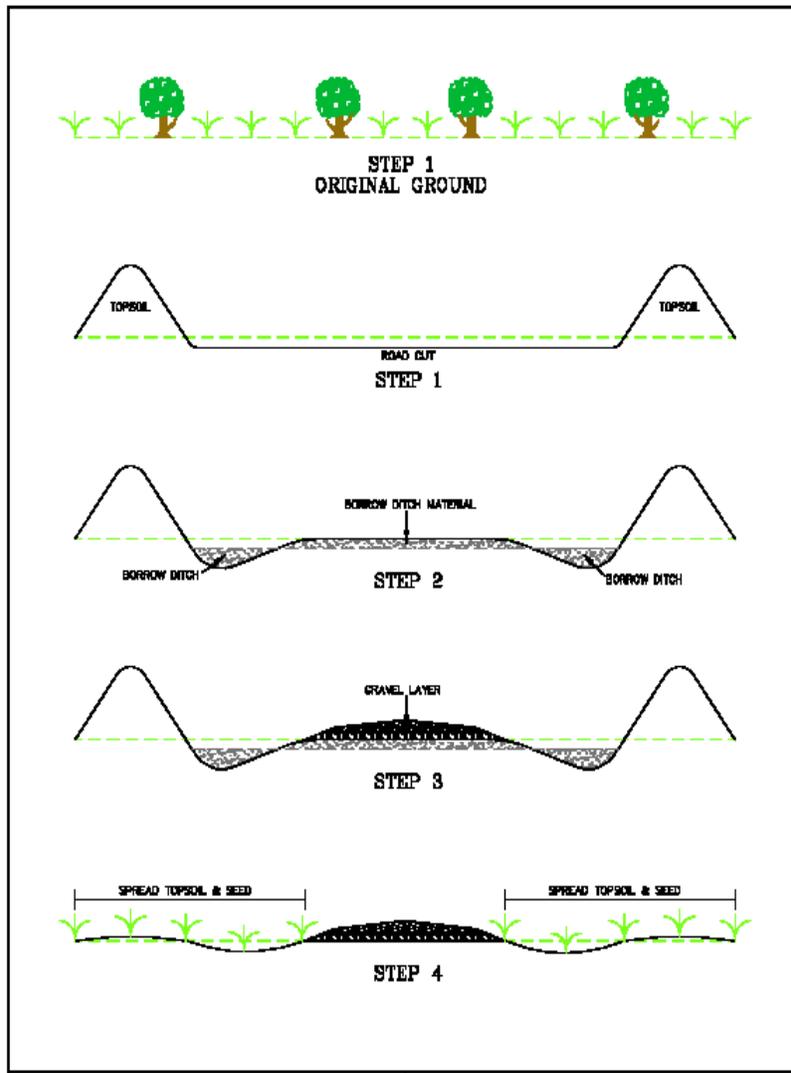


Figure 3: An illustrated cross-section of a "Crowned and ditched" road



Figure 4: Photo of a recently constructed access road

c. Location of Existing Oil Wells

Six oil wells have been previously drilled in this portion of White River Valley and are shown in Table 2.2(c) and summarized below.

Table 2.2(c)

Operator	Well Name	Completion Date	T	R	Sec	Miles from Federal 1-35
Supron Energy Corp.	Lease F-28-8-61 No.1	Jun 1980	8N	61E	28	1.8
Gulf Oil Corp.	Standard of CA Fed No. 1	Jan 1968	8N	61E	33	1.4
Northwest Exploration	White River Valley No.1	Jun 1978	7N	61E	2	0.7
Northwest Exploration	White River Valley No.6	Sep 1981	7N	61E	2	1.3
Gulf Oil Corp	Gose “BZ” Federal “A” No.1	Sep 1968	7N	62E	4	4.2
Gulf Oil Corp	Gose “DL” Federal No.1	July 1968	8N	62E	17	4.2

d. Location of Existing and/or Proposed Production Facilities

There are no production facilities in White River Valley. The nearest existing production facility is the Foreland Refinery in Railroad Valley, approximately 30 air miles west of the project area.

If production was established at either location, production facilities would be located on the well locations. Production facilities would be selected based on the projected production rate and properties of the produced hydrocarbon fluid. Typical surface facilities consist of the well head, pump jack and engine, storage tanks, and piping. A Sundry Notice showing the location of tank batteries and production facilities would be submitted prior to production operations. All portions of the well locations not needed for production would be reclaimed. Production would be expected to last for several years.

Design features to minimize visual impacts to visual resources are below:

Visual Resource proposed design features within White River Valley to minimize visual impacts from Oil & Gas projects

- Low profile tanks would be used at all well pads, to reduce visual impacts
- All permanent (i.e., on site for six months or longer) tanks, separators, wellheads, and other associated pad facilities would be painted Shadow Gray in open areas and Shale Green when located in a pinyon/juniper stands. Other non-reflective color may be determined by the BLM
- Facilities would be positioned on the pad against cut slopes, to the extent possible
- Production facilities shall be placed to avoid or minimize visibility from travel corridors, residential areas, and other sensitive observation points—unless directed otherwise by the BLM
- Collocated access roads, pipeline, cross-country pipelines, and well pads would be designed to minimize surface disturbance and visual resources concerns
- Access roads would be designed to follow contouring wherever possible; and/or be placed behind larger stands of vegetation to reduce the visual impacts
- Pad locations would be positioned parallel to existing contouring wherever possible, to minimize cut and fill
- The use of existing vegetation would be considered when designing the position of certain pads to blend into the existing characteristic landscape
- Feathering edges of the well pads to avoid stark line contrasts and blend with the surrounding landscape, when possible
- To the extent possible, topsoil, existing vegetation and rocks shall be preserved when clearing and grading for pads, roads, and pipelines to be redistributed over reshaped cut-and-fill slopes or along linear features
- Shielded lighting sources would be selected to avoid visual distraction and minimize light pollution

Implementation of these measures would mitigate potential impacts to visual resources and would make the Proposed Action consistent with the existing VRM Class objectives within Railroad Valley.

All Facilities would be painted with colors using the BLM Standard Environmental Color Chart. Covert Green has been chosen as the most effective color for both well locations. Shielded lighting sources would be selected to avoid visual distraction and minimize light pollution to persons and wildlife during night operations.

e. Location and Types of Water Supply

Water for construction, dust control, and drilling operations would be obtained from drilling a new temporary water well at each of the proposed well pads. This would be achieved by obtaining a temporary permit from the Nevada Department of Water Resources. Each well could consume up to 500,000 gallons of water for drilling operations and dust control. Groundwater is anticipated to occur approximately 200 feet below ground surface. Total depth of the well would be approximately 500 feet. The water well would be drilled and, after drilling activities are completed, plugged and abandoned in accordance with Nevada Division of Water Resources regulations.

f. Construction Materials

Construction material, consisting of gravel for road and pad construction, would be obtained from within an existing BLM gravel pit in T.8 N., R. 62 E., Section 28 as shown on **Figure 1**. Access is from the County maintained Shingle Pass Road ¼-mile east of State Route 318. Gravel would be purchased through a Mineral Materials sales contract with the BLM. Approximately 4,000 cubic yards of gravel would be required for the BSEM Federal 1-35 location and access roads and approximately 6,000 cubic yards for BSEM Federal 1-14.

Operations would consist of a dozer, front end loader, and haul trucks. Gravel would be obtained from the bottom of an existing 3-acre pit within the existing disturbed area. Reclamation of the pit would consist of recontouring the excavations to a 3:1 slope and removing any trash to an authorized landfill.

g. Methods for Handling Waste

Drill cuttings and drilling fluids would be contained in a reserve pit. Hydrocarbons would not be allowed to accumulate in the reserve pit. If hydrocarbon accumulation becomes a concern then a flare pit would be used for hydrocarbon removal. The reserve pit would be dried before backfilling. Fluids would not be drained on the surrounding ground surface. Excess water produced (produced water) during drilling operations or during production would be hauled to a registered Nevada disposal area.

Petroleum products, such as fuels and lubricants, would be temporarily stored and used onsite. Any spills of hydrocarbons from equipment onsite would be promptly cleaned up and removed from the location, in accordance with state and federal regulations.

All other solid and liquid wastes and trash that accumulate during the drilling operations would be contained onsite in a trash cage, dumpster, or other appropriate container. Wastes would be contracted with a local company and removed periodically from the location for disposal at approved landfill. Burning would not be allowed on the well site. Chemical toilets with holding tanks would be utilized and contracted from a local company. All sewage would be disposed of in accordance with county, state, and federal regulations.

h. Ancillary Facilities

The abandoned gravel pit at the beginning of the access road to BSEM Federal 1-35 (**Figure 1**) would serve as a staging area for equipment until the pad excavation is completed. This staging area would temporarily support machinery used for construction and drilling.

i. Well site Layout

Sketches of the proposed well site layouts for BSEM Federal 1-35 and BSEM Federal 1-14 are shown in **Figure 5** and **Figure 6**.

BSEM Federal 1-35:

BSEM Federal 1-35 **Figure 5** would be located on a gentle alluvial slope that would require cuts as much as six feet. Construction would begin by mowing vegetation with a bush hog into manageable compost. All available topsoil, along with the compost, would be stripped from the location and bermed separately around the outside of the planned pad perimeter. The pad would then be constructed and covered with 6 inches or more of gravel obtained from the Shingle Pass road gravel pit. The stockpiled topsoil would be leveled and seeded with an interim seed mix for future reclamation. The useable graveled surface for operations would measure approximately 2.6 acres. Total surface disturbance, including topsoil stockpiles, reserve pit spoils, and additional storage surrounding the constructed pad, would measure approximately 4.0 acres.

The reserve pit would be designed to exclude surface runoff. It would be constructed entirely in cut material, and sealed with bentonite. The pit would be fenced on three sides and flagged to prevent wildlife, wild horses, and livestock from falling into it. Once drilling operations are completed, the fourth side of the fence would be strung and flagged.

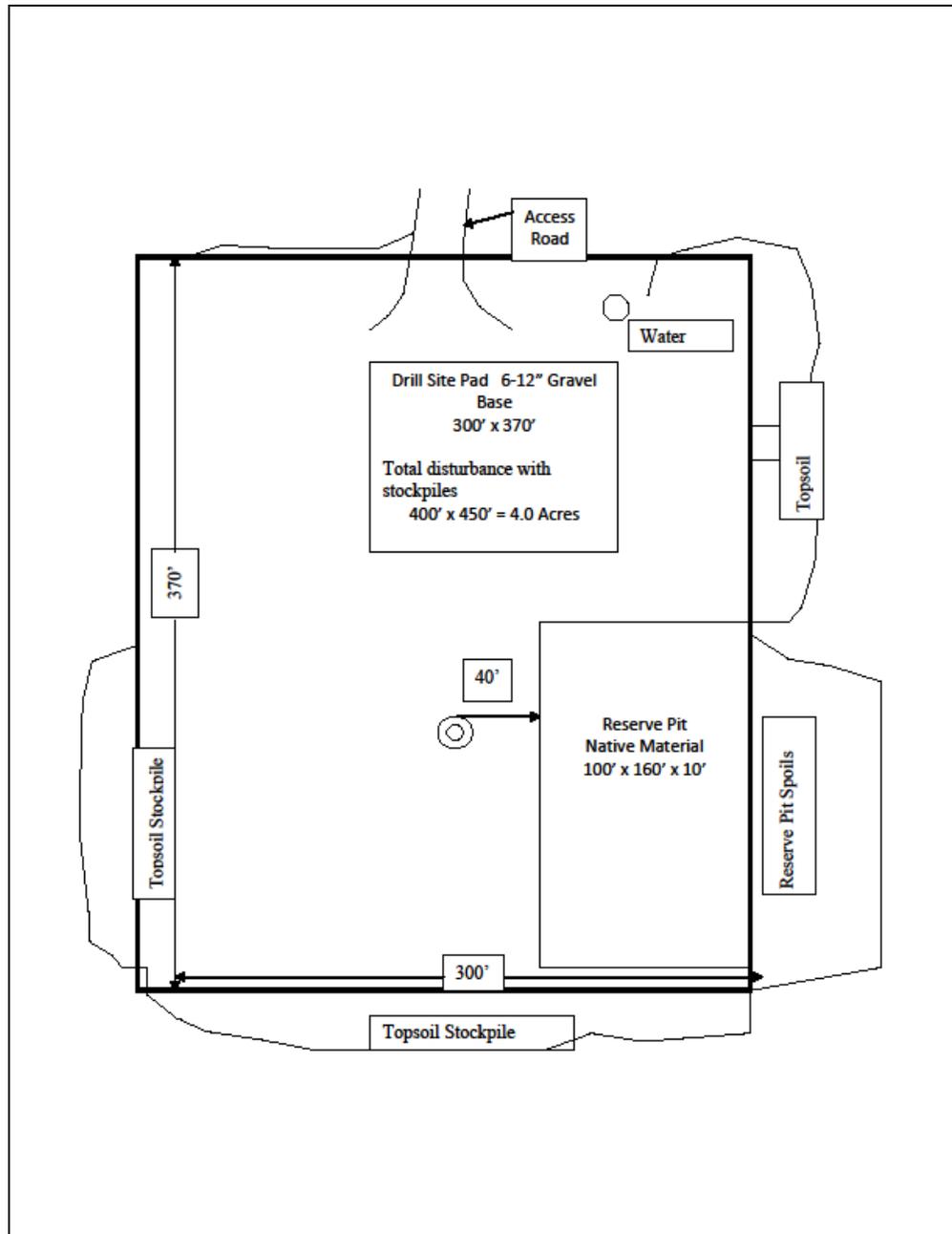


Figure 5: Proposed well layout diagram for BSEM 1-35 well

No permanent living facilities are proposed for the well locations, but there would be trailers on location during drilling operations which would serve as temporary offices and housing for the drilling supervisor, well site geologist, and other personnel. All units would be self-contained and maintained and serviced by local suppliers.

BSEM Federal 1-14:

Well BSEM Federal 1-14 (**Figure 6**) would be constructed on the flat, clay-rich valley bottom alluvium within the White River floodplain. Construction would begin by mowing vegetation with a bush hog into manageable compost. If valley bottom

conditions were favorable, the topsoil could be salvaged. Saturated soils may not support the weight of heavy equipment, thus not allowing the topsoil to be salvaged during construction. The reserve pit would be excavated and the spoils used to berm off the exposed outer perimeter of the pit. It would be constructed entirely in cut material and sealed with bentonite.

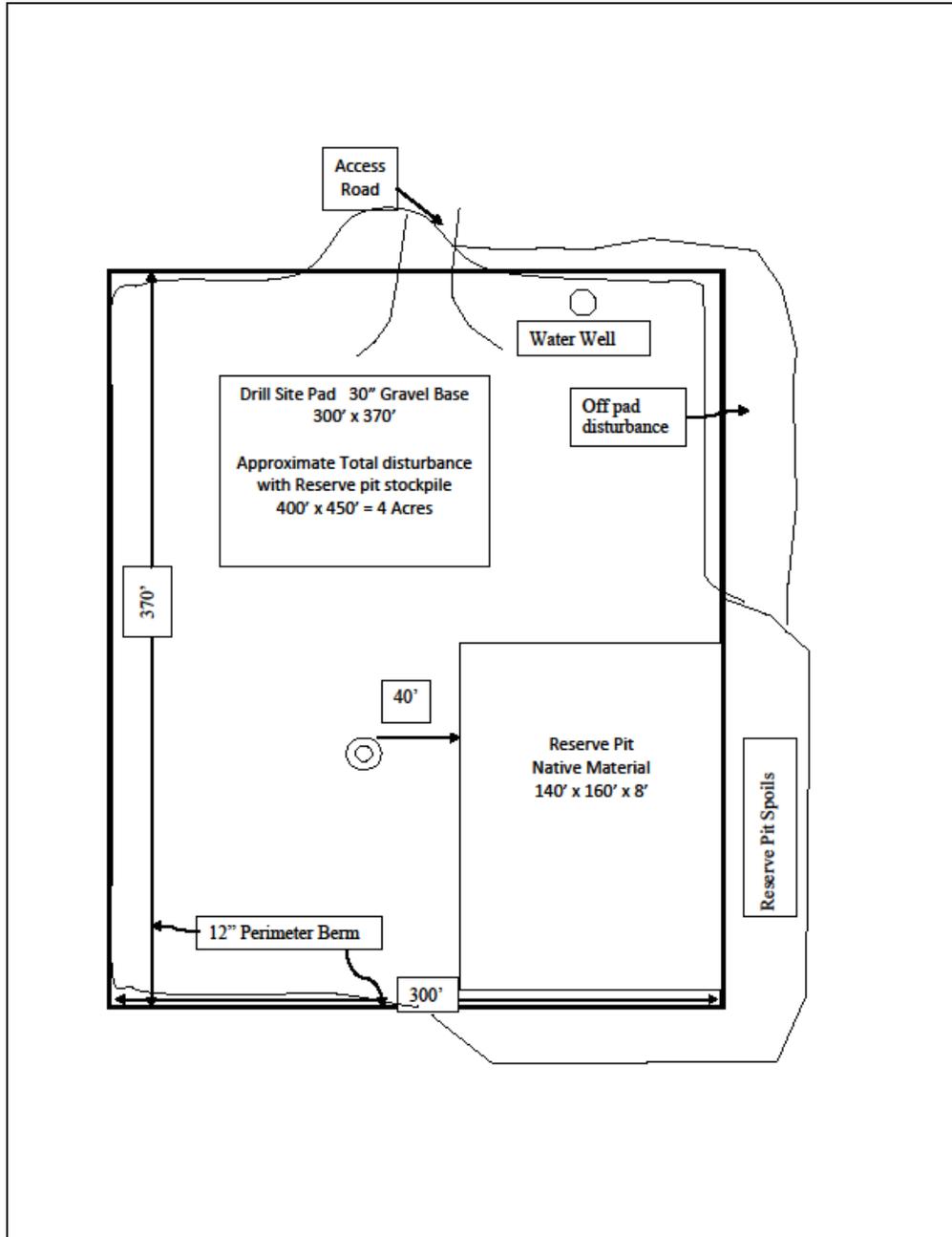


Figure 6: Proposed well layout diagram for BSEM 1-14 well

The gravel cover would be constructed to a minimum height of 30 inches above the floodplain. An additional 12 inches of gravel would be placed on top of the perimeter of

the pad to provide secondary containment for any fluids that might breach their primary containment. The constructed pad surface would again measure approximately 2.9 acres and total maximum surface disturbance 4.0 acres.

No permanent living facilities are proposed for the well location, but there would be trailers on location during drilling operations, which would serve as temporary offices, and housing for the drilling supervisor, well site geologist, and other personnel. All units would be self-contained, maintained, and serviced by local suppliers.

A Flood Damage Prevention Application/Permit would be submitted to Nye County prior to construction. All permit terms would be complied with. In particular, all structures, tanks and floatable equipment would be strapped down and secured to the well pad to ensure stabilization during possible flooding.

The earthwork contractor would be provided with an approved design package and a copy of the operations plan in accordance with 43 CFR 3164.

j. Plans for Surface Reclamation

Well abandonment and plugging would be similar for both well locations in accordance with the appropriate sections of the NAC Chapter 534. If production is established at either of the wells, those portions of the well pads not needed for production operations, approximately two of the four acres, would be reclaimed. Final reclamation of the pads and access roads would be deferred until the well is plugged and abandoned.

Upon completion of drilling and rig demobilization, the location and surrounding area would be cleaned of all material and debris not necessary for production. The reserve pits would be completely fenced off and flagged on all four sides to prevent access by wildlife, wild horses, and livestock. Any hydrocarbons remaining in a reserve pit after drilling operations would be removed in accordance with state and federal regulations. Any remaining fluids in the reserve pits would be pumped back down the drill hole or removed and disposed of to an approved off site location prior to allowing pit drying to take place.

Interim surface reclamation would have begun concurrently with well access road and well site construction activities. Topsoil would have been segregated in leveled stockpiles along the perimeter of the access roads and drill pads and seeded with an interim seed mixture.

Once the reserve pit is dry, which normally takes up to six months or one drying season, dirt work would commence. The well pad and any other associated disturbed areas would be re-contoured to the approximate natural contours. Cuts and fills would be reduced to 3:1 slopes or less. All excavations would be backfilled and compacted from bottom to top. Any liners used in the reserve pits would be folded over into the pits prior to backfilling with the spoil material.

Gravel on roads and pad in excess of four inches thick, which could interfere with re-vegetative success, would be removed to an approved offsite location free of cultural concerns, such as the Shingle Pass gravel pit, prior to ripping. The remaining gravel on the drill pads and access roads would be ripped and mixed with the underlying material. Compacted soils within the disturbed areas would be broken up into a fine-grained seedbed by disking or any other generally accepted method of preparation. The stockpiled topsoil would be distributed over the re-contoured area. Seeding and scarifying would be conducted during the recommended seeding period of October 1 to March 15.

During rehabilitation efforts, commencing with demobilization of the drill rig, a reclamation fence would be constructed around the entire disturbance of each well location to exclude livestock and wildlife grazing. The fence would remain until revegetation has been determined by the BLM to be successful, at which time the fence would be removed by the proponent.

2.3 No Action Alternative

The No Action alternative would deny the proposed application. Under the No Action, present operations would continue under the present permit.

2.4 Alternatives Considered, but Eliminated from Further Analysis

An access route to BSEM Federal 1-14 from the west side of White River was considered, but eliminated from further analysis. No other reasonable alternatives were identified to address unresolved conflicts concerning alternative uses of available resources.

3.0 AFFECTED ENVIRONMENT

3.1 Introduction

This chapter presents the existing environment (i.e., the physical, biological, social, and economic values and resources) of the impact area, the issues analyzed, the impacts to the analyzed resources, and proposed mitigation that could be applied that would reduce those impacts.

Potential impacts to the following resources concerns were evaluated in accordance with criteria listed above to determine if detailed analysis was required. Consideration of some of these items is to ensure compliance with laws, statutes or Executive Orders that impose certain requirements upon all Federal actions. Other items are relevant to the management of public lands in general, and to the Ely District BLM in particular.

The following table documents the issues evaluation or rationale for dismissal from analysis:

Resource/Concern	Issue? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Air Quality*	N	Dust suppression measures designed to minimize dust production are a part of the proposed action. An Air Pollution Control Permit issued by the Nevada Division of Environmental Protection would be obtained by the proponent. No further analysis required.
Area of Critical Environmental Concern (ACEC)*	N	Resource not present in project area. The White River Valley Proposed ACEC is located approximately 1 mile south of BSEM Federal 1-14.
Cultural Resources*	N	<p>A Section 106 Class III cultural inventory was completed on April 30, 2012 for BSEM Federal 35-1 and its constructed and existing access roads. There were no sites located considered eligible to the National Register of Historic Places, therefore, there will be no effect to cultural resources. No further analysis required.</p> <p>No surveys were conducted on behalf of BSEM Federal 1-14 or its access roads. Therefore, a Section 106 Class III cultural inventory must be completed before construction for BSEM Federal 1-14 can be authorized.</p>
Forest Health*	N	Resource not present in project area.
Livestock Grazing	N	<p>The proposed action occurs within the Sunnyside Grazing Allotment (21023), a large allotment of 219,500 acres which is permitted for 600 cattle from 6/1 to 10/31 for 3,018 AUMs and for 600 cattle from 12/1 to 5/15 for 2,407 AUMs. Cattle grazing is dispersed in the allotment. Cattle commonly graze the saline meadows of the White River Floodplain where alkali sacaton & other grazeable plants occur. The White River Sheep Trail (11005) occurs within the allotment, from 0.5 to 1.5 miles west of the action. The short duration sheep trailing use that occurs in this area in fall and spring would not be affected by the action. The oil and gas operation “reserve pits” that would contain any toxic substances associated with operations will be fenced to exclude grazing</p>

		animals.
Migratory Birds* And Bald and Golden Eagles	N	The migratory bird nest identification and avoidance procedures of the proposed action would minimize disturbance to nestlings until fledged.
Native American Religious and other Concerns*	N	The BLM sent out Native American Tribes consultation letters on May 8, 2012. An onsite visit was held for members of the Duckwater Shoshone Tribe. No concerns were identified.
FWS Listed or proposed for listing Threatened or Endangered Species or critical habitat*	N	No Threatened or Endangered Species were identified in the project area through consultation with the USFWS.
Wastes, Hazardous or Solid*	N	Solid and hazardous wastes and hazardous materials would be handled according to state and federal regulations, the Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development – The Gold Book, and the Ely BLM District Best Management Practices (Appendix A).
Water Quality, Surface/Ground*	N	Downhole drilling regulations, casing requirements, and sealing of the reserve pits, as incorporated into the design features of the proposed action, would minimize interaction between the oil wells and temporary water well with surface and ground water. No further analysis required.
Environmental Justice*	N	Project area is in a remote portion of Nye County, approximately 26 miles from the nearest community of Lund. No minority of low-income groups would be disproportionately affected by health or environmental effects by the proposed action. No further analysis required.
Floodplains*	Y	Analyzed further in EA.
Prime and unique farmlands*	N	No unique farmlands exist in the State of Nevada. No prime farmlands occur in the project analysis area.
Wetlands/Riparian Zones*	N	Resource not present in the analysis area. The White River floodplain is not considered a riparian area. The Kirch Wildlife Management Wildlife Management Area is located approximately 3 miles south of BSEM Federal 1-14

Non-native Invasive and Noxious Species*	N	A Weed Risk Assessment determined a moderate risk rating (Appendix B). The design features of the proposed action including noxious weed prevention and treatment of any newly established noxious weeds would minimize the impacts of the project. No further analysis required.
Special Status animal Species, other than those listed or proposed by the FWS as Threatened or Endangered.	N	Based on the absence of quality pygmy rabbit (<i>Brachylagus idahoensis</i>) habitat and pygmy rabbit sign, the proposed action is unlikely to affect pygmy rabbits and their habitat, or contribute to the listing of this species as Threatened or Endangered. The area is not in Preliminary Priority Habitat or Preliminary General Habitat for sage grouse (<i>Centrocercus urophasianus</i>) as determined by NDOW.
Special Status Plant Species, other than those listed or proposed by the FWS as Threatened or Endangered.	Y	Consultation was made with the Nevada Natural Heritage Program. Analyzed further in EA.
Wilderness/WSA*	N	Project area is not in a Wilderness/WSA area. The nearest Wilderness is the South Egan Range Wilderness, approximately 5 miles east of the project area. No further analysis required.
Lands with Wilderness Characteristics	N	Resource not present in project area.
Wild Horses	N	Resource not present in the analysis area.
Fish and Wildlife	N	The project is not within a sensitive or crucial area for fish and wildlife. Deer and antelope occasionally graze in the area. A number of species of predators, small mammals, reptiles and birds are also to be found within the project area. Design features in the proposed action will minimize effects on wildlife. No further analysis required.
Soils Resources	Y	Analyzed further in EA.
Visual Resources	N	The proposed action is within Visual Resource Management Class III. The Class III objectives will be met by incorporating the design features listed and through the

		reclamation process. No further analysis is required.
Lands and Realty	N	Access from the existing gravel pit crosses the NDOT ROW for SR 318 and an adjacent utility line. There would be no modifications to these land use authorizations through the proposed action, therefore no impacts would occur. A ROW would be obtained for off lease access road construction. No further analysis required.
Recreation	N	Recreation uses within the area are dispersed and low. The Kirch Wildlife Management Area is approximately 4 miles from the proposed project. Impacts to recreational uses are not anticipated. No further analysis is required.
Paleontological Resources	N	Currently there are no identified paleontological resources identified within the Area of Project Affects.
Human Health and Safety*	N	Operations will have negligible effects on safety to the public by following the Best Management Practices and existing regulations. All traffic laws and regulations will be followed. No further analysis required.
Water Resources (Water Rights)	N	No permitted or pending water rights from surface or groundwater sources occur in the project area. The company is applying for a temporary permit and water use will not affect existing or pending water rights. No further analysis required.
Mineral Resources	N	Only common gravel and silty fill material occurs in or near the project area. Potential oil reserves on adjacent oil and gas leases are protected through State and Federal Oil and Gas regulations.
Vegetative Resources	Y	Analyzed further in EA.

*Nevada Supplemental Authority

4.0 ENVIRONMENTAL EFFECTS

4.1 General Setting

The project area is located in the center of White River Valley between the South Egan Range, on the east and the White Pine Range, on the West (**Figure 1**). The South Egan Wilderness covers much of the South Egan Range east of SR 318, a major north-south

highway. The nearest population center is the community of Lund, approximately 25 miles north of the project area. Ely lies 60 miles north of the project area; Las Vegas, 180 miles south. The Kirch Wildlife Management Area, approximately three miles south of the project area, serves as both a biological refuge and a prime recreational area for fishing, camping, and other activities.

The White River, in the recent geologic past, was once a tributary to the Colorado River system, but now contains only limited surface water. Geomorphically, the project area consists of a ½-mile wide, flat, seasonally marshy, alkali river bottom; 30 to 40-foot high moderately sloping riverbanks; and a 15-mile wide gently sloping valley floor.

BSEM Federal 1-35 is located at the base of the riverbank. BSEM Federal 1-14 is on the river bottom. The constructed access road to BSEM Federal 1-35 and the alternative east access road to BSEM Federal 1-14 are along the riverbanks. The proposed west access road to BSEM Federal 1-14 goes down the riverbank, then crosses the river bottom to the well location. Most of the existing access roads are in the valley bottom.

At an elevation of approximately 5,220 feet, annual precipitation averages approximately 8"-10" per year, mostly in the form of snow. Vegetation above the river bottom consists of a Wyoming big sagebrush community, which supports deer, elk, antelope, and other wildlife. Local agriculture and grazing activities are widespread throughout the Valley. The project area is within the Sunnyside Grazing Allotment.

4.2 Special Status Plant Species

4.2.1 Affected Environment

Julie Thompson, Staff Ecologist, Eastern Nevada Landscape Coalition conducted a plant survey, on May 15, 2012 (Appendix C). "The White River Valley north and south of Kirch Wildlife Management Area and White River Valley Proposed ACEC has been the focus of the White River Valley Rare Plant Conservation Strategy initiated by The Nature Conservancy of Nevada and the U.S. Fish and Wildlife Service. Gypsum soil mounds or barren white calcareous soils occur along the white river basin, supporting locally rare plants. Plants of conservation concern within five miles of the project area and focus of this survey are *Frasera gypsicola*, *Mentzelia tiehmii*, *Phacelia parishii*, and *Asclepias eastwoodiana*. All are known to occur on gypsum mounds, except *Phacelia parishii*, which occurs on alkali playas and flooded low-elevation sites."

No special status plant species were identified in a survey for the BSEM Federal 1-35 well location and its access road.

An alternate west access route to BSEM Federal 1-14 was considered, but was eliminated from further analysis. It crossed an occurrence of gypsiferous soils containing numerous Gypsophile species, including *Asclepias eastwoodiana* - Eastwood milkweed. The proposed access route to BSEM Federal 1-14 crosses Wyoming big sagebrush habitat similar to that surveyed to BSEM Federal 1-35 and is not expected to contain sensitive species.

4.2.2 Environmental Effects

The access route and well location for BSEM Federal 1-35 would not affect any known sensitive plant species.

The access road to BSEM Federal 1-14 would be in habitat unlikely to contain special status plants. A site-specific plant survey would be completed prior to any construction. Therefore, there would be no adverse effect to special status plant species.

4.2.3 No action alternative

There would be no effect to sensitive species due to the proposed action.

4.3 Vegetative Resources

4.3.1 Affected Environment

Vegetation in the project area primarily consists of a Wyoming big sagebrush and black greasewood plant community that covers most of the White River Valley floor and dry riverbank slopes that extend down to the White River bottom. The dry river bottom is a saline meadow dominated by the native grass alkali sacaton. The saline meadow is fairly densely vegetated. Vegetation species recorded during the plant survey (Section 4.2.1) are listed in Appendix C.

The existing and constructed access roads to BSEM Federal 1-35 and nearly all of the well location would be mostly within the Wyoming big sagebrush and black greasewood plant community that borders the saline meadow. Approximately ½-acre of the northwest corner of the pad would extend onto the alkali sacaton saline meadow.

The BSEM 1-14 well location and approximately 200 feet of the constructed access road would be within the alkali sacaton saline meadow. The remaining sections of the existing and proposed new access roads would be within the Wyoming big sagebrush and black greasewood community. A portion of the existing access road also crosses a winterfat plant community.

4.3.2 Environmental Effects

Existing vegetation would be lost during the life of the project due to removal and stockpiling of existing topsoil for road and pad construction. Approximately 8.5 acres of vegetation would be disturbed for BSEM Federal 1-35. Should the BSEM Federal 1-14 be drilled, an additional 9.3 acres of vegetation would be disturbed.

If a well is put into production, approximately two of the four acres of the well location not needed for operations would be reclaimed upon demobilization of the drill rig.

The reclamation procedures of the proposed action would re-establish growth medium (soil) for revegetation. It is expected that grasses and forbs would re-establish first

followed by shrubs. Invasive species such as halogeton, cheatgrass, Russian thistle, and annual mustard could slow or inhibit native plants re-establishment in the reclaimed areas. To a certain extent native plant re-establishment would also be dependent on annual climate conditions.

The mitigation measures of the proposed action are designed to minimize impacts to vegetation. Upon completion of reclamation, a mix of native vegetation and invasive species is expected to re-establish on the project site.

4.3.3 No action alternative

There would be no effects to vegetative resources due to the no-action alternative.

4.4 Soils Resources

4.4.1 Affected Environment

As much as 12” of topsoil overlay the valley alluvium in the vicinity of the project area. The undisturbed soils support Wyoming big sagebrush and black greasewood vegetative communities as discussed in section 4.3.

4.4.2 Environmental Effects

Approximately 8.5 acres of topsoil would be stripped and stockpiled construction of the access road and well location for BSEM Federal 1-35. Should BSEM Federal 1-14 be drilled, an additional 9.3 acres of topsoil would be stripped.

Handling of topsoil disrupts its physical and organic characteristics which would degrade its productivity. Stockpiles are subject to wind and rain erosion, which over several years would reduce the amount available for reclamation.

The mitigation measures of the proposed action would minimize impacts to soils. Segregation of topsoil and interim seeding of the stockpiles would help preserve organic viability of the topsoil. Interim revegetation would lessen the susceptibility to erosion. Interim reclamation of the well locations, should a well be placed in production, would allow early replacement of portions of topsoil in these areas.

4.4.3 No action alternative

There would be no affect to soil resources due to the no-action alternative.

4.5 Flood Plains

4.5.1 Affected Environment

Most of the White River river-bottom along the west side of the project area is classified as a “Special Flood Hazard Area” by Nye County and designated by the Federal Emergency Management Agency (FEMA) as “Zone A” on the FHBM. That portion of the river bottom, then, is subject to a one percent or greater chance of flooding in any given year – a hundred year flood.

The White River floodplain in the vicinity of the project area is a broad, flat lying ephemeral alkali marsh, approximately ½-mile wide that slopes southward at a grade of approximately 0.2 percent (ten feet per mile). Flooding occurs generally spring during melting of accumulated snow and local precipitation, particularly while the river bottom soils are still frozen and impermeable.

The well location and access roads for BSEM 1-35 are not within the floodplain, though the west side of the well location would be immediately adjacent to east edge of the designation.

The well location and approximately 200 feet of proposed new access road for BSEM Federal 1-14 are within the designated floodplain. A Floodplain Permit would be obtained from Nye County prior to construction activities for BSEM Federal 1-14

4.5.2 Environmental Effects

BSEM Federal 1-35 is not located within a floodplain. Therefore, there would be no impacts to floodplains due to the proposed action for BSEM Federal 1-35.

BSEM Federal 1-14 would be susceptible to flooding which could inundate roads and the well site if they were constructed on the elevation of the floodplain. Such flooding would jeopardize the containment of fluids, equipment, and temporary structures.

Design features for construction of the proposed action, particularly raising the elevation of the drill pad and access road to 30 inches above the floodplain, tying down floatable objects, construction of a perimeter berm around the well location, and compliance with other conditions of the pending Nye County Floodplain Permit would minimize impacts to floodplains.

4.5.3 No action alternative

There would be no affect to flood plains due to the no-action alternative.

5.0 CUMULATIVE IMPACTS

5.1 Introduction

As required under NEPA and the regulations implementing NEPA, this section analyzes potential cumulative impacts from past, present, and reasonably foreseeable future actions combined with the Proposed Action within the area analyzed for impacts in Chapter 4 specific to the resources for which cumulative impacts may be anticipated. A cumulative impact is defined as “the impact which results from the incremental impact of the action, decision, or project when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor

but collectively significant actions taking place over a period of time” (40 Code of Federal Regulations 1508.7).

5.2 Past Present and Reasonably Foreseeable Future Actions

Impacts to special status plant species, vegetative resources, soil resources, and floodplains from the proposed action have been analyzed in Section 4. Other Past Present and Reasonably Foreseeable Future Actions may also affect special status plant species, vegetative resources, soil resources, and floodplains. The area of cumulative effects is the portion of White River Valley south of the Kirch Wildlife Management Area northward to Preston: Townships 5 North to 12 North, Ranges 60 East to 62 East; an area of roughly 864 square miles.

Past, present, and future actions consist of agriculture, grazing, conservation, recreation, fire, and construction activities such as wildcat oil well drilling, mineral material operations, and the recently authorized On Line Transmission Line. All of the authorized surface disturbing activities are subject to best management practices and reclamation procedures as part of the permit approval.

Thirty-five wildcat oil wells have been drilled within the area of cumulative effects since 1958. Typical surface disturbance for a well plus its access road is approximately five acres, or 175 acres of cumulative surface disturbance. Portions of many access roads have been and continue to be used for multiple projects.

As additional intermittent drilling is expected to continue at a rate of approximately one well per year, five acres of new permitted disturbance would occur annually. Should a wildcat exploration hole intersect producible oil, additional exploration, plus development activities would likely increase.

Mineral material operations consist of two Community Pits, one negotiated sale, and four Nevada Department of Transportation (NDOT) gravel pit ROWs. Total authorized disturbance is approximately 316 acres.

5.3 Cumulative Impact Analysis of Special Status plant Species, Vegetative Resources, Soil Resources, and Floodplains.

Comprehensive analysis of cumulative impacts are analyzed in the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007) on p.4.28 to 4.36. The reasonably foreseeable development scenarios anticipate 8,400 acres of disturbance and as many as 448 wells drilled for oil and gas exploration and development, (p. 4.36-1). The proposed actions combined are no more than 17.8 acres of surface disturbance, well within the scope of the document. This site-specific EA tiers to, and incorporates by reference, the Ely District Approved Resource Management Plan (August 2008), no additional analysis is necessary to address cumulative impacts for the proposed action.

The 17.8 acres of maximum disturbance of the proposed action would have minimal cumulative effects, either short-term or long-term, to special status plant species, vegetative resources, soil resources, and floodplains. No further analysis of cumulative impacts is needed for this proposed action.

6.0 TRIBAL CONSULTATION AND LIST OF PREPARERS

6.1 Tribes Consulted

Tribal consultation letters were sent to the following contact at each Native American Tribe on May 8, 2012. No concerns were expressed during the 30 day comment period after that date.

Virginia Sanchez	<i>Duckwater Shoshone Tribe of the Duckwater Reservation</i>
Jeanine Borchardt	<i>Paiute Indian Tribe of Utah</i>
Toni Means	<i>Las Vegas Paiute Tribe of the Las Vegas Indian Colony</i>
David Smith	<i>Yomba Shoshone Tribe of the Yomba Reservation, Nevada</i>
Bryon Cassadore	<i>Te-Moak Tribes of the Western Shoshone Indians of Nevada</i>
Edward Naranjo	<i>Confederate Tribes of the Goshute Indian Reservation</i>
Alvin S. Marques	<i>Ely Shoshone Tribe of Nevada</i>
William Anderson	<i>Moapa Band of Paiute Indians of the Moapa River Reservation</i>
Lori Bear Skiby	<i>Skull Valley Band of Goshute Indians</i>

6.2 List of Preparers

6.2.1 BLM Preparers:

Dave Davis	Project Lead, Plan Review
Mindy Seal	Environmental Coordinator, Environmental Justice
Lisa Gilbert	Cultural Resources, Paleontology
Erica Husse	Noxious and Invasive, Non-native Weed Species,
Erin Rajala	Recreation, Visual Resources,
Elvis Wall	Native American Religious Concerns
Marian Lichtler	Wildlife, Special Status Species, Migratory Birds
Mark D'Aversa	Air, Soils, Riparian/Wetlands, Water Quality, Floodplains
Emily Simpson	Wilderness
Stephanie Trujillo	Lands and Realty
Melanie Peterson	Hazardous Materials, Safety
Ruth Thompson	Wild Horse and Burros
Mark Lowrie	Rangeland Health, Vegetation

6.2.2 Non-BLM Preparers

Bill Wilson Geo, LLC	Consulting Geologist	EA Preparation
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7.0 REFERENCES, GLOSSARY AND ACRONYMS

7.1 References Cited

Bureau of Land Management (BLM), Ely District Record of Decision and Approved Resource Management Plan, August 2008

Bureau of Land Management, 2007c. Surface Operating Procedures for Oil and Gas Exploration and Development: The Gold Book, 4th Edition. U.S. Department of the Interior.

Ely Proposed Resource Management Plan/Final Environmental Impact Statement, Volume I & II, November 2007.

Thompson, Julie, Eastern Nevada Landscape Coalition: Plant Survey Report, BSEM Oil Well Project Area, White River Valley, Nye County, Nevada; May 16, 2012

7.2 Acronyms

BLM-Bureau of Land Management

CFR-Code of Federal Regulations

DR-Decision Record

EA-Environmental Assessment

EIS-Environmental Impact Statement

FLPMA-Federal Land Policy and Management Act

FONSI-Finding of No Significant Impact

IM-Instructional Memorandum

NEPA-National Environmental Policy Act

RFFS-Reasonably Foreseeable Future Action

RMP-Resource Management Plan

APPENDIX A: BEST MANAGEMENT PRACTICES

General and Administrative

1. Any change or amendment to your minerals operation must be brought to the attention of the Ely Field Office Manager or an authorized officer prior to implementation of the change on the ground.
2. All survey monuments, claim markers, witness corners, reference monuments, bearing trees, etc., must be protected against destruction, obliteration or damage. When operations are concluded, the operator will remove all survey markers, stakes, flagging, etc., for which the operator has no further need.
3. Removal or alteration of existing improvements (fences, cattle guards, etc.) is not allowed without prior approval of the Authorized Officer. Existing improvements will be maintained in a serviceable and safe condition. Upon completion of operations, any authorized facility alterations will be restored to the specifications of the authorized officer.
4. All trash, garbage, debris, and foreign matter must be removed and properly disposed. Site must be maintained and left in a clean and safe condition. Burning will not be allowed at the site.

Cultural Resources

5. Cultural resource inventories will be conducted on all proposed areas of potential surface disturbing impacts, including appropriate buffer zones, prior to authorization of the mineral operations. Inventories will be completed by BLM or BLM-approved cultural resource permit holders.
6. All decisions issued by the Ely Field Office will have a Needs Assessment completed in accordance with the Nevada BLM and SHPO Protocol.
7. Documentation (photos, drawings, etc.) will be collected on all sites eligible for the National Register of Historic Places. This will allow tracking of human and natural caused deterioration.
8. If cultural resources (historic or archaeological materials) are discovered during construction, the operator is to immediately stop work protect such materials, and contact the Authorized Officer. Within five working days, the Authorized Officer will inform the operator as to:
 - a. The appropriate treatment measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not feasible);

- b. A timeframe for the Authorized Officer to complete an expedited review and necessary consultation;
 - c. The operator's responsibility for treatment costs; and
 - d. Technical and procedural guidelines for the conduct of the treatment. Upon verification from the Authorized Officer that the required treatment has been completed, the operator will then be allowed to resume construction.
9. All identified cultural resources will be avoided by project related activities per the Nevada BLM standards for cultural resources. If avoidance is not feasible, mineral activities must cease until mitigating measures or treatments are developed and implemented and Section 106 consultation is completed. Archaeological monitors may be required in special cases.
10. The operator is responsible for informing all persons associated with the project that knowingly disturbing cultural resources (historic or archaeological) or collecting artifacts is illegal.

Visual Resources

11. On industrial facilities authorized by the Ely District Office, utilize anti-glare light fixtures to limit light pollution.

Noxious Weeds

12. A noxious weed survey will be completed prior to any earth disturbing activity including cross-country travel. Noxious or invasive weeds that may be located on the site will be managed according to methods to be approved by the Authorized Officer. Should chemical methods be approved, the lessee must submit a Pesticide Use Proposal to the Authorized Officer 60 days prior to the planned application date. A Pesticide Application Report must be submitted to the Authorized Officer by the end of each fiscal year following chemical application.
13. To eliminate the transport of vehicle-borne weed seeds, roots, or rhizomes, all vehicles and heavy equipment used for the completion, maintenance, inspection, or monitoring of ground disturbing activities; for emergency fire suppression; or for authorized off-road driving will be free of soil and debris capable of transporting weed propagules. All such vehicles and equipment will be cleaned with power or high pressure equipment prior to entering or leaving the work site or project area. Vehicles used for emergency fire suppression will be cleaned as a part of check-in and demobilization procedures. Cleaning efforts will concentrate on tracks, feet or tires, and on the undercarriage. Special emphasis will be applied to axles, frames, cross members, motor mounts, on and underneath steps, running boards, and front bumper/brush guard assemblies. Vehicle cabs will be swept out and refuse will be disposed of in waste receptacles. Cleaning sites

will be recorded using GPS or other mutually acceptable equipment and provided to the BLM Weed Coordinator or designated contact person.

14. Prior to the entry of vehicles and equipment to a project area, areas of concern will be identified and flagged in the field by a weed scientist or qualified biologist. The flagging will alert personnel or participants to avoid areas of concern.
15. Prior to entering public lands, the Contractor, Operator, or permit holder will provide information and training regarding noxious weed management and identification to all personnel who will be affiliated with the implementation and maintenance phases of the project. The importance of preventing the spread of weeds to uninfested areas and the importance of controlling existing populations of weeds will be explained.
16. To eliminate the transport of soil-borne noxious weed seeds, roots, or rhizomes, infested soils or materials will not be moved and redistributed on weed-free or relatively weed-free areas. In areas where infestations are identified or noted and infested soils, rock, or overburden must be moved, these materials will be salvaged and stockpiled adjacent to the area from which they were stripped. Appropriate measures will be taken to minimize wind and water erosion of these stockpiles. During reclamation, the materials will be returned to the area from which they were stripped.
17. Prior to project approval, a site specific weed survey will occur and a Weed Risk Assessment will be completed. Monitoring will be conducted for a period no shorter than the life of the permit or until bond release and monitoring reports will be provided to the BLM. If the spread of noxious weeds is noted, appropriate weed control procedures will be determined in consultation with BLM personnel and will be in compliance with the appropriate BLM Handbook sections and applicable laws and regulations. All weed control efforts on BLM lands will be in compliance with BLM Handbook H-9011, H-9011-1 Chemical Pest Control, H-9014 Use of Biological Control Agents of Pests on Public Lands, and H-9015 Integrated Pest Management. Submission of Pesticide Use Proposals (PUPs) and Pesticide Application Records (PARs) will be required.
18. All vehicles and heavy equipment used for the completion, maintenance, inspection, or monitoring of ground disturbing activities; for emergency fire suppression; or for authorized off-road driving that are used to drive through, mow, harvest, scrape, or otherwise contact plant species listed on the Nevada Noxious Weed list or specifically identified by the Ely Field Office will be cleaned prior to continued use in weed free areas.
19. For mineral activity, retain bonds for weed control until the site is returned to desired vegetative conditions.

20. In areas of known noxious weed infestations, monitoring of noxious weeds will be conducted on an annual basis. Monitoring will be conducted until project release. If the spread of noxious weeds is noted, the infested areas will be further evaluated to determine the appropriate remedial action and appropriate treatment. Appropriate weed control procedures, including target species, timing of control, and method of control, will be determined in consultation with BLM personnel.
21. No noxious weeds will be allowed on the site for reclamation release. Any noxious weeds that become established will be controlled.

Soils and Vegetation

22. Existing access must be used whenever possible. Off-road vehicular travel shall be held to an absolute minimum necessary to complete operations. Additional roads, if needed, will be kept to an absolute minimum and the location of routes must be approved by the Authorized Officer prior to construction.
23. All vegetative clearing will be held to the minimum necessary to accommodate the planned operation.
24. During periods of adverse conditions affecting soil moisture caused by climatic factors such as thawing, heavy rains, snow, flooding, or drought, all activities off existing maintained roads that create excessive surface rutting may be suspended. When adverse conditions exist, the operator will contact the Authorized Officer for an evaluation and decision based on soil types, soil moisture, slope, vegetation, and cover.
25. Lands containing unstable/highly erodible soils may require additional protective measures such as restrictions on surface entry during periods of excessive runoff, avoidance of selected areas, and special reclamation techniques.

Hazardous Materials

26. No oil or lubricants will be drained onto the ground surface. Any spills less than 25 gallons will be immediately cleaned up; spills over 25 gallons will be reported to the Authorized Officer and NDEP.
27. All construction, operation, and maintenance activities will comply with all applicable Federal, State, and local laws and regulations regarding the use of hazardous substances and the protection of air and water quality.

Fire

28. The operator will make every effort to prevent, control, or suppress any fire in the operating area. The operator may be required to have fire-fighting equipment available on-site while operations are in progress, depending on hazards inherent in the type of

operation and fire hazard levels. Reports of uncontrolled fires will be relayed immediately to the Ely District Office Manager or Authorized Officer. The BLM Fire Dispatch telephone number is (775) 289-1925 or 1-800-633-6092. After working hours call 911 or the White Pine County Sheriff's office at (775) 289-8801, the Lincoln County Sheriff's Office at (775) 962-5151, or the Nye county Sheriff's Office at (775) 482-8101

Wildlife and Livestock

29. Under no circumstances will wild horses, burros, wildlife, or livestock be willfully harassed. When traveling roads, all livestock gates will be closed after use.
30. To protect wildlife and wild horses, perimeter fences will be flagged every 16 feet with white flagging. The flagging should be at least one inch wide and with at least twelve inches hanging free from the top wire of the fence. Fences will also avoid obvious horse migration routes (deep trails, stud piles) if at all possible.
31. If the project involves heavy or sustained traffic, road signs for safety and protection of wild horses and wildlife will be required.
32. Any new disturbance commencing between April 15 and July 15 must first be surveyed for nesting migratory birds. If nests are found, the project may be moved or delayed until July 15.

Reclamation

33. To provide for effective rehabilitation of the disturbed area, all available growth medium, as practical, will be removed and stockpiled. Any trees removed will be separated from soils and stockpiled separately.
34. Topsoil stockpiles and road berms, if scheduled to be left in place over the growing season, will be seeded with an approved site-specific interim seed mix to reduce erosion, preserve the biological flora and fauna, and prevent the establishment of noxious weeds and other undesirable plant species.
35. The operator shall reclaim the disturbed area concurrently or at the earliest feasible time by recontouring to conform to pre-existing topography (including filling of trenches), to the extent possible, followed by redistribution of stockpiled topsoil over the reclaimed area. Compacted areas will be ripped to a depth of 12 inches unless in solid rock. Ripped areas may need further work to break up large clods and produce a fine-grained seed bed.
36. Site preparation for reclamation may include contour furrowing, terracing, and reduction of steep cut and fill slopes, and the installation of water bars, etc.
37. Reseeding may be required, in which case a site-specific seed mixture will be recommended by the operator and approved by the Authorized Officer. Seeding is

recommended only between October 1 and March 15 for the northern part of the District, and November 1 through March 1 for the southern part of the District.

38. Reclamation will normally be accomplished with native seeds only. These will be representative of the indigenous species present in the adjacent habitat. Rationale for potential seeding with selected non-natives must be documented. Possible exceptions could include use of non-natives for a temporary cover crop to out-complete weeds. Where large acreages are burned by the fires and seeding is required for erosion control, all native species can be cost prohibitive and/or unavailable. In all cases, seed mixes will be approved by the Authorized Officer prior to planting.
39. All interim and final seed mixes, hay, straw, and hay/straw products must be tested for noxious weeds and certified free of plant species listed on the Nevada Noxious Weed list.
40. The Ely Field Office Manager or the Authorized Officer will be notified within 5 days of completion of reclamation work so that timely compliance inspections can be completed.
41. The area is considered to be satisfactorily reclaimed when all disturbed areas have been recontoured to blend with the natural topography, erosion has been stabilized, and an acceptable vegetative cover has been established. The Nevada Guidelines for Successful Revegetation for the Nevada Division of Environmental Protection, the Bureau of Land Management, and the U.S.D.A Forest Service (or most current revision or replacement of this document) will be used to determine if revegetation is successful.

APPENDIX B: RISK ASSESSMENT FOR NOXIOUS & INVASIVE WEEDS**RISK ASSESSMENT FOR NOXIOUS & INVASIVE WEEDS**
BSEM Federal 1-35 & BSEM Federal 1-14 Wildcat Oil Wells
Nye County, Nevada

A Noxious & Invasive Weed Risk Assessment was completed for the BSEM Federal 1-35 & Federal 1-14 oil wells. Bright Sky Energy & Minerals submitted an Application for a Permit to Drill wildcat oil wells, BSEM Federal 1-35 & BSEM Federal 1-14, in White River Valley, located in Nye County, NV. BSEM Federal 1-35 will be drilled first and, if successful, BSEM Federal 1-14 will be drilled soon after. The BSEM Federal 1-14 well location is approximately 3 miles north of the Kirch Wildlife Management Area (WMA) in the valley bottom. The BSEM Federal 1-35 well location is approximately 2 miles directly north of BSEM Federal -1-14. There will be no activity within the WMA.

The proposed access routes to the wells use a combination of existing upgraded roads, 2-tracks, and approximately two miles of new road. Each well location disturbance will be approximately 9 acres. Both access roads and well pads will be graveled and all construction would be on the lease. A water supply well would be drilled on each location. A gravel source will come from an existing BLM pit off the Shingle Pass road north of Sunnyside. Reclamation will consist of re-contouring and reseeding the pads and access roads.

No field weed surveys were completed for this project. Instead the Ely District weed inventory data was consulted. There are currently no mapped weed infestations within or along the proposed access roads and well sites. The following species are found along roads or drainages leading to the project area:

- Russian knapweed
- Bull Thistle
- Whitetop
- Tall whitetop
- Poison Hemlock

The project area was last inventoried for noxious and invasive weeds in 2002. While not officially documented the following non-native invasive weeds probably occur in or around the area: cheatgrass (*Bromus tectorum*), bur buttercup (*Ceratocephala testiculata*), field bindweed (*Convolvulus arvensis*), Russian olive (*Elaeagnus angustifolia*), halogeton (*Halogeton glomeratus*), horehound (*Marrubium vulgare*), and Russian thistle (*Salsola kali*).

Factor 1 assesses the likelihood of noxious/invasive weed species spreading to the project area.

None (0)	Noxious/invasive weed species are not located within or adjacent to the project area. Project activity is not likely to result in the establishment of noxious/invasive weed species in the project area.
Low (1-3)	Noxious/invasive weed species are present in the areas adjacent to but not within the project area. Project activities can be implemented and prevent the spread of noxious/invasive weeds into the project area.
Moderate (4-7)	Noxious/invasive weed species located immediately adjacent to or within the project area. Project activities are likely to result in some areas becoming infested with noxious/invasive weed species even when preventative management actions are followed. Control measures are essential to prevent the spread of noxious/invasive weeds within the project area.
High (8-10)	Heavy infestations of noxious/invasive weeds are located within or immediately adjacent to the project area. Project activities, even with preventative management actions, are likely to result in the establishment and spread of noxious/invasive weeds on disturbed sites throughout much of the project area.

For this project, the factor rates as Moderate (6) at the present time. With the amount of ground disturbance associated with this type of facility and the type of weed species in the area it is probable that the project activities will result in new weed infestations to the area.

Factor 2 assesses the consequences of noxious/invasive weed establishment in the project area.

Low to Nonexistent (1-3)	None. No cumulative effects expected.
Moderate (4-7)	Possible adverse effects on site and possible expansion of infestation within the project area. Cumulative effects on native plant communities are likely but limited.
High (8-10)	Obvious adverse effects within the project area and probable expansion of noxious/invasive weed infestations to areas outside the project area. Adverse cumulative effects on native plant communities are probable.

This project rates as High (8) at the present time. If new infestations establish within the project area this could adversely impact those native plant communities since the area is currently considered to be weed-free. Also, any increase of cheatgrass could alter the fire regime in the area.

The Risk Rating is obtained by multiplying Factor 1 by Factor 2.

None (0)	Proceed as planned.
Low (1-10)	Proceed as planned. Initiate control treatment on noxious/invasive weed populations that get established in the area.
Moderate (11-49)	Develop preventative management measures for the proposed project to reduce the risk of introduction of spread of noxious/invasive weeds into the area. Preventative management measures should include modifying the project to include seeding the area to occupy disturbed sites with desirable species. Monitor the area for at least 3 consecutive years and provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.
High (50-100)	Project must be modified to reduce risk level through preventative management measures, including seeding with desirable species to occupy disturbed site and controlling existing infestations of noxious/invasive weeds prior to project activity. Project must provide at least 5 consecutive years of monitoring. Projects must also provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.

For this project, the Risk Rating is Moderate (48). This indicates that the project can proceed as planned as long as the following measures are followed:

- Prior to the entry of vehicles and equipment to a project area, areas of concern will be identified and flagged in the field by a weed scientist or qualified biologist. The flagging will

alert personnel or participants to avoid areas of concern. These sites will be recorded using global positioning systems or other Ely District Office approved equipment and provided to the District Office Weed Coordinator or designated contact person.

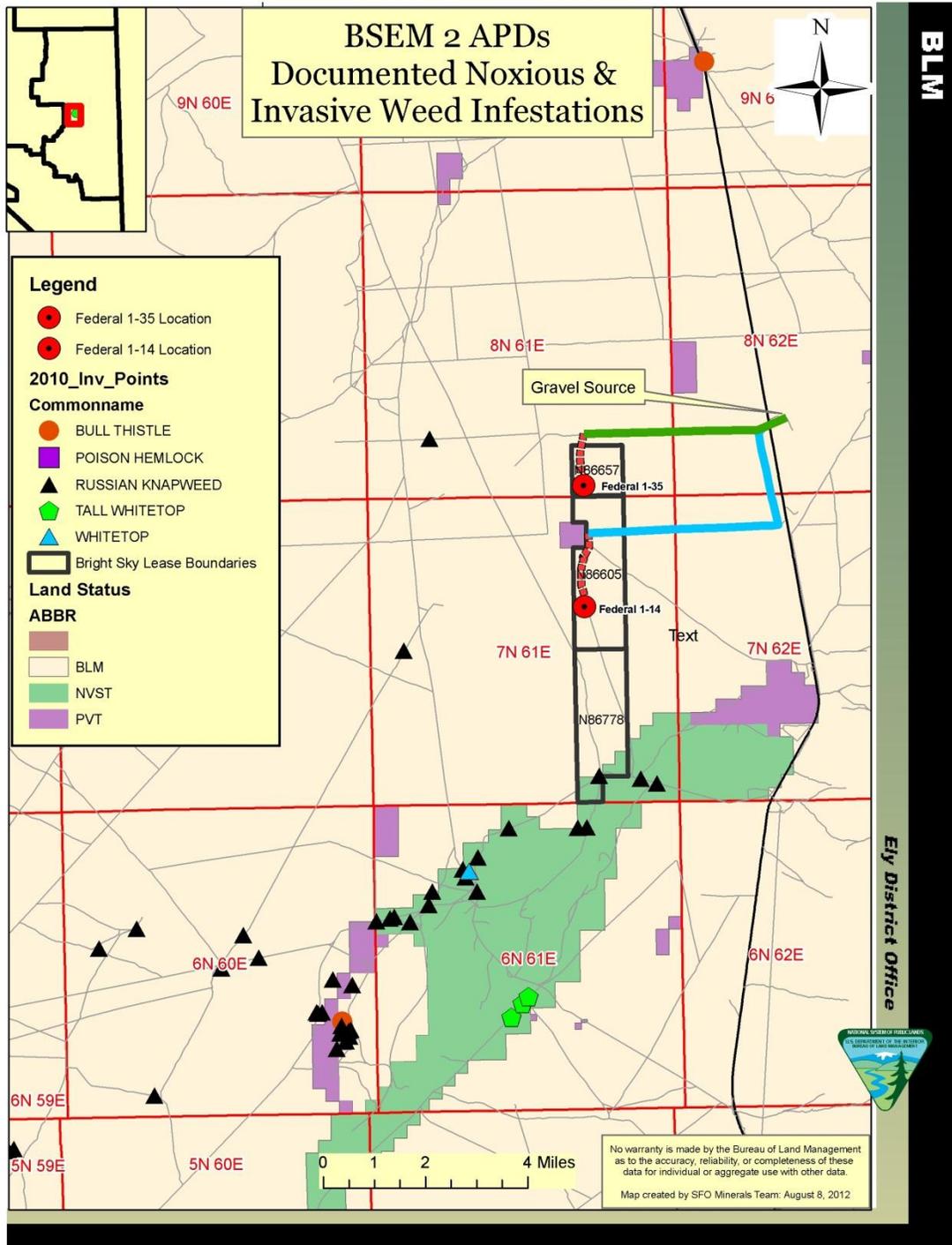
- Prior to entering public lands, the contractor, operator, or permit holder will provide information and training regarding noxious weed management and identification to all personnel who will be affiliated with the implementation and maintenance phases of the project. The importance of preventing the spread of weeds to uninfested areas and importance of controlling existing populations of weeds will be explained.
- To eliminate the transport of vehicle-borne weed seeds, roots, or rhizomes all vehicles and heavy equipment used for the completion, maintenance, inspection, or monitoring of ground disturbing activities; or for authorized off-road driving will be free of soil and debris capable of transporting weed propagules. All such vehicles and equipment will be cleaned with power or high pressure equipment prior to entering or leaving the work site or project area. Cleaning efforts will concentrate on tracks, feet and tires, and on the undercarriage. Special emphasis will be applied to axels, frames, cross members, motor mounts, on and underneath steps, running boards, and front bumper/brush guard assemblies. Vehicle cabs will be swept out and refuse will be disposed of in waste receptacles. Cleaning sites will be recorded using global positioning systems or other mutually acceptable equipment and provided to the District Office Weed Coordinator or designated contact person.
- Removal and disturbance of vegetation would be kept to a minimum through construction site management (e.g. using previously disturbed areas and existing easements, limiting equipment/materials storage and staging area sites, etc.)
- To eliminate the introduction of noxious weed seeds, roots, or rhizomes all interim and final seed mixes, hay, straw, hay/straw, or other organic products used for reclamation or stabilization activities, feed, bedding will be certified free of plant species listed on the Nevada noxious weed list or specifically identified by the BLM Ely District Office.
- Reclamation would normally be accomplished with native seeds only. These would be representative of the indigenous species present in the adjacent habitat. Rationale for potential seeding with selected nonnative species would be documented. Possible exceptions would include use of non-native species for a temporary cover crop to out-compete weeds. Where large acreages are burned by fires and seeding is required for erosion control, all native species could be cost prohibitive and/or unavailable. In all cases, seed mixes would be approved by the BLM Authorized Officer prior to planting.
- To eliminate the introduction of noxious weed seeds, roots, or rhizomes all source sites such as borrow pits, fill sources, or gravel pits used to supply inorganic materials used for construction, maintenance, or reclamation will be inspected and found to be free of plant species listed on the Nevada noxious weed list or specifically identified by the BLM Ely District Office. Inspections will be conducted by a weed scientist or qualified biologist.
- Noxious and invasive weed monitoring will be conducted for a period no shorter than the life of the permit or until bond release and monitoring reports will be provided to the Ely District Office. If the presence and/or spread of noxious weeds is noted, appropriated weed control procedures will be determined in consultation with Ely District Office personnel and will be in compliance with the appropriate BLM Handbook sections and applicable laws and regulations. All weed control efforts on BLM-administered lands will be in compliance with BLM Handbook H-9011, H-9011-1 Chemical Pest Control, H-9014 Use of Biological Control

Agents of Pests on Public Lands, and H-9015 Integrated Pest Management. Submission of Pesticide Use Proposals and Pesticide Application Records will be required.

- Mixing of herbicides and rinsing of herbicide containers and spray equipment would be conducted only in areas that are safe distance from environmentally sensitive areas and points of entry to bodies of water (storm drains, irrigation ditches, streams, lakes, or wells).
- Methods used to accomplish weed and insect control objectives would consider seasonal distribution of large wildlife species.
- No noxious weeds will be allowed on the site at the time of reclamation release. Any noxious weeds that become established will be controlled.

Reviewed by: _____
Ely District Noxious & Invasive Weeds Coordinator

Date



APPENDIX C: RECOMMENDED SEED MIX

Interim Stabilization Seed Mix
 BSEM Oil Wells
 For Topsoil Stockpiles and Roadside Berms

<u>Species</u>	<u>Seeds/Lb</u>	<u>Seed rate</u> lbs/ac	<u>Seeds/sq ft</u>
Sporobolus cryptandrus (Sand dropseed)	5,298,000	0.1	12
Secale cereale Cereal rye	18,000	40	16
Psathyrostachys juncea (Russian Wildrye, variety -Bozoisky Select)	175,000	5	20

Total		45.1 lbs/ac	48 seeds/sq ft

Substitutions can be made depending on seed price and availability. Contact the BLM if substitutions are required.

* Seed rate - Adjust listed pounds/acre for pure live seed.

$$\text{Pure Live Seed pounds/acre} = \frac{\text{Seed rate (listed above lbs/acre)}}{(\% \text{ germination}) (\% \text{ purity})}$$

Final Seed Mixture
 BSEM Federal 1-35 oil well
 Recommended Final Seed Mix

<u>Species</u> <u>ft</u>	<u>Seeds/Lb</u>	<u>Seed rate</u> lbs/ac	<u>Seeds/sq</u>
Sporobolus cryptandrus (Sand dropseed)	5,298,000	0.1	12
Sitanion hystrix (Squirrel tail)	192,000	2.0	8
Sporobolus airoides (Alkali sacatan)	1,758,000	0.2	8
Oryzopsis hymenoides (Indian ricegrass)	141,000	2.0	6
Sphaeralcea coccinea (Scarlet globemallow)	500,000	0.5	6
Ephedra nevadensis (Nevada Mormon tea)	19,900	1.0	0.5
Grayia spinosa (Spiny hopsage)	166,800	1.0	3
Atriplex canescens (Four wing saltbrush)	52,000	2.0	2
Atriplex confertifolia (Shadscale)	64,900	<u>2.0</u>	<u>3</u>
Total		10.8	48.5

Seeds should be planted between October 1 and March 15.

Substitutions can be made depending on seed price and availability. Contact the BLM if substitutions are required.

* Seed rate - Adjust listed pounds/acre for pure live seed.

Pure Live Seed pounds/acre = $\frac{\text{Seed rate (listed above lbs/acre)}}{(\% \text{ germination}) (\% \text{ purity})}$

APPENDIX D: NOXIOUS AND INVASIVE WEED LISTS

Federal Noxious Weed List

As of June 30, 2006

http://www.aphis.usda.gov/plant_health/plant_pest_info/weeds/downloads/weedlist2006.pdf

Scientific Name	Common Name		
Aquatic/Wetland:			
<i>Azolla pinnata</i>	mosquito fern, water velvet		
<i>Caulerpa taxifolia</i>	Mediterranean strain killer algae		
<i>Eichornia azurea</i>	anchored or rooted waterhyacinth		
<i>Hydrilla verticillata</i>	hydrilla		
<i>Hygrophila polysperma</i>	Miramar weed		
<i>Ipomoea aquatica</i>	water-spinach, swamp morning-glory		
<i>Lagarosiphon major</i>	African elodea, oxygen weed		
<i>Limnophila sessiliflora</i>	ambulia		
<i>Melaleuca quinquenervia</i>	broadleaf paper bark tree		
<i>Monochoria hastate</i>	arrowleaf falsepickerelweed		
<i>Monochoria vaginalis</i>	heartshape false pickerelweed		
<i>Ottelia alismoides</i>	ducklettuce		
<i>Sagittaria sagittifolia</i>	arrowhead		
<i>Salvinia auriculata</i>	giant salvinia		
<i>Salvinia biloba</i>	giant salvinia		
<i>Salvinia herzogii</i>	giant salvinia		
<i>Salvinia molesta</i>	giant salvinia		
<i>Solanum tampicense</i>	wetland nightshade		
<i>Sparganium erectum</i>	exotic bur-reed		
Parasitic:			
<i>Aeginetia</i> spp.	aeginetia		
<i>Alectra</i> spp.	alectra		
<i>Cuscuta</i> spp.	dodders, other than following species:		
<i>americana</i>	<i>decipiens</i>	<i>harperi</i>	<i>polygonorum</i>
<i>applanata</i>	<i>dentatasquamata</i>	<i>howelliana</i>	<i>rostrata</i>
<i>approximata</i>	<i>denticulata</i>	<i>indecora</i>	<i>runyonii</i>
<i>attenuata</i>	<i>epilinum</i>	<i>jepsonii</i>	<i>salina</i>
<i>boldinghii</i>	<i>epithymum</i>	<i>leptantha</i>	<i>sandwichiana</i>
<i>brachycalyx</i>	<i>erosa</i>	<i>mitriformis</i>	<i>squamata</i>
<i>californica</i>	<i>europaea</i>	<i>nevadensis</i>	<i>suaveolens</i>
<i>campestris</i>	<i>exalta</i>	<i>obtusiflora</i>	<i>suksdorfii</i>
<i>cassytoides</i>	<i>fasciculata</i>	<i>occidentalis</i>	<i>tuberculata</i>
<i>ceanothii</i>	<i>glabrior</i>	<i>odontolepis</i>	<i>umbellata</i>
<i>cephalanthii</i>	<i>globulosa</i>	<i>pentagona</i>	<i>umbrosa</i>

<i>compacta</i> <i>corylii</i> <i>cuspidata</i>	<i>glomerata</i> <i>gronovii</i>	<i>planiflora</i> <i>plattensis</i>	<i>vetchii</i> <i>warneri</i>
Orobanche spp.	broomrapes, other than the following species:		
<i>bulbosa</i> <i>californica</i> <i>cooperi</i> <i>corymbosa</i>	<i>dugesii</i> <i>fasciculata</i> <i>ludoviciana</i>	<i>multicaulis</i> <i>parishii</i> <i>pinorum</i>	<i>uniflora</i> <i>valida</i> <i>vallicola</i>
Striga spp.	witchweeds		
Terrestrial:			
<i>Ageratina adenophora</i>	crofton weed		
<i>Alternanthera sessilis</i>	sessile joyweed		
<i>Asphodelus fistulosus</i>	onionweed		
<i>Avena sterilis</i>	animated oat, wild oat		
<i>Carthamus oxyacantha</i>	wild safflower		
<i>Chrysopogon aciculatus</i>	pilipiliula		
<i>Commelina benghalensis</i>	Benghal dayflower		
<i>Crupina vulgaris</i>	common crupina		
<i>Digitaria scalarum</i>	African couchgrass, fingergrass		
<i>Digitaria velutina</i>	velvet fingergrass, annual conchgrass		
<i>Drymaria arenarioides</i>	lightning weed		
<i>Emex australis</i>	three-cornered jack		
<i>Emex spinosa</i>	devil's thorn		
<i>Galega officinalis</i>	goatsrue		
<i>Heracleum mantegazzianum</i>	giant hogweed		
<i>Homeria</i> spp.	Cape tulip		
<i>Imperata brasiliensis</i>	Brazilian satintail		
<i>Imperata cylindrica</i>	cogongrass		
<i>Ischaemum rugosum</i>	muraingrass		
<i>Leptochloa chinensis</i>	Asian sprangletop		
<i>Lycium ferocissimum</i>	African boxthorn		
<i>Melastoma malabathricum</i>	Malabar melastome		
<i>Mikania cordata</i>	mile-a-minute		
<i>Mikania micrantha</i>	bittervine		
<i>Mimosa invisa</i>	giant sensitive plant		
<i>Mimosa pigra</i>	catclaw mimosa		
<i>Nassella trichotoma</i>	serrated tussock		
<i>Opuntia aurantiaca</i>	jointed prickly pear		
<i>Oryza longistaminata</i>	red rice		

<i>Oryza punctata</i>	red rice
<i>Oryza rufipogon</i>	red rice
<i>Paspalum scrobiculatum</i>	Kodo-millet
<i>Pennisetum clandestinum</i>	kikuyugrass
<i>Pennisetum macrourum</i>	African feathergrass
<i>Pennisetum pedicellatum</i>	kyasumagrass
<i>Pennisetum polystachion</i>	missiongrass, thin napiergrass
<i>Prosopis alata</i>	mesquite
<i>Prosopis argentina</i>	mesquite
<i>Prosopis articulate</i>	velvet mesquite
<i>Prosopis burkartii</i>	mesquite
<i>Prosopis caldenia</i>	mesquite
<i>Prosopis calingastana</i>	mesquite
<i>Prosopis campestris</i>	cusqui mesquite
<i>Prosopis castellanosii</i>	mesquite
<i>Prosopis denudans</i>	mesquite
<i>Prosopis elata</i>	mesquite
<i>Prosopis farcta</i>	Syrian mesquite
<i>Prosopis ferox</i>	mesquite
<i>Prosopis fiebrigii</i>	mesquite
<i>Prosopis hassleri</i>	mesquite
<i>Prosopis humilis</i>	mesquite
<i>Prosopis kuntzei</i>	mesquite
<i>Prosopis pallida</i>	kiawe mesquite
<i>Prosopis palmeri</i>	mesquite
<i>Prosopis reptans</i>	tornillo mesquite
<i>Prosopis rojasiana</i>	mesquite
<i>Prosopis ruizlealii</i>	mesquite
<i>Prosopis ruscifolia</i>	mesquite
<i>Prosopis sericantha</i>	mesquite
<i>Prosopis strombulifera</i>	Argentine screwbean
<i>Prosopis torquata</i>	mesquite
<i>Rottboellia cochinchinensis</i>	itchgrass
<i>Rubus fruticosus</i>	wild blackberry
<i>Rubus moluccanus</i>	wild raspberry
<i>Saccharum spontaneum</i>	wild sugarcane
<i>Salsola vermiculata</i>	wormleaf salsola

<i>Senecio inaequidens</i>	South African ragwort
<i>Senecio madagascariensis</i>	Madagascar ragwort
<i>Setaria pallide-fusca</i>	cattail grass
<i>Solanum torvum</i>	turkeyberry
<i>Solanum viarum</i>	tropical soda apple
<i>Spermacoce alata</i>	winged false buttonweed
<i>Tridax procumbens</i>	coat buttons
<i>Urochloa panicoides</i>	liverseed grass

Nevada Noxious Weed List

http://agri.nv.gov/nwac/PLANT_No WeedList.htm

Scientific Name	Common Name
Category A Weeds:	
<i>Alhagi camelorum</i>	Camelthorn
<i>Anthemis cotula</i>	Mayweed chamomile
<i>Arundo donax</i>	Giant Reed
<i>Centaurea calcitrapa</i>	Purple Star thistle
<i>Centaurea iberica</i>	Iberian Star thistle
<i>Centaurea masculosa</i>	Spotted Knapweed
<i>Centaurea melitensis</i>	Malta Star thistle
<i>Centaurea solstitialis</i>	Yellow Starthistle
<i>Centaurea virgata</i> Lam. Var. <i>squarrose</i>	Squarrose star thistle
<i>Chondrilla juncea</i>	Rush skeletonweed
<i>Crupina vulgaris</i>	Common crupina
<i>Cynoglossum officinale</i>	Houndstongue
<i>Euphorbia esula</i>	Leafy spurge
<i>Galega officinalis</i>	Goats rue
<i>Hydrilla verticillata</i>	Hydrilla
<i>Hypericum perforatum</i>	Klamath weed
<i>Isatis tinctoria</i>	Dyer's woad
<i>Linaria dalmatica</i>	Dalmation Toadflax
<i>Linaria vulgaris</i>	Yellow Toadflax
<i>Lythrum salicaria</i> , <i>L. virgatum</i> & cultivars	Purple loosestrife
<i>Myriophyllum spicatum</i>	Eurasian water-milfoil
<i>Peganum harmala</i>	African Rue
<i>Potentilla recta</i>	Sulfur cinquefoil
<i>Rorippa austriaca</i>	Austrian fieldcress

<i>Salvia aethiopis</i>	Mediterranean sage
<i>Salvinia molesta</i>	Giant Salvinia
<i>Sonchus arvensis</i>	Sow Thistle
<i>Sphaerophysa salsula</i> / <i>Swainsona salsula</i>	Austrian peaweed
<i>Zygophyllum fabago</i>	Syrian Bean Caper

Category B Weeds:

<i>Acroptilon repens</i>	Russian Knapweed
<i>Brassica tournefortii</i>	Sahara Mustard
<i>Carduus nutans</i>	Musk Thistle
<i>Centaurea diffusa</i>	Diffuse Knapweed
<i>Onopordum acanthium</i>	Scotch Thistle
<i>Solanum carolinense</i>	Carolina Horse-nettle
<i>Solanum elaeagnifolium</i>	White Horse-nettle
<i>Taeniatherum caput-medusae</i>	Medusahead

Category C Weeds:

<i>Cardaria draba</i>	Hoary cress
<i>Cicuta maculata</i>	Water Hemlock
<i>Cirsium arvense</i>	Canada Thistle
<i>Conium maculatum</i>	Poison Hemlock
<i>Hyoscyamus niger</i>	Black henbane
<i>Lepidium latifolium</i>	Perennial pepperweed
<i>Pennisetum setaceum</i>	Green Fountain grass
<i>Sorghum halepense</i>	Johnson grass
<i>Tamarix spp</i>	Salt cedar (tamarisk)
<i>Tribulus terrestris</i>	Puncture vine

BLM National List of Invasive Weed Species of Concern

http://www.blm.gov/co/st/en/BLM_Programs/botany/invasiweed.html

Scientific Name	Common Name
Grasses	
<i>Aegilops cylindrica</i>	jointed goatgrass
<i>Ammophila arenaria</i>	European beachgrass
<i>Arundo donax</i>	giant reed
<i>Bromus diandrus</i>	ripgut brome

<i>Bromus japonicus</i>	Japanese brome
<i>Bromus rubens</i>	red brome
<i>Bromus tectorum</i>	downy brome
<i>Cenchrus longispinus</i>	longspine sandbur
<i>Cortaderia jubata</i>	Andean pampas grass
<i>Cortaderia selloana</i>	pampas grass
<i>Cynodon dactylon</i>	bermudagrass
<i>Ehrharta calycina</i>	veldt grass
<i>Elytrigia repens</i>	quackgrass
<i>Eragrostis lehmanniana</i>	Lehmann lovegrass
<i>Nardus stricta</i>	matgrass
<i>Panicum miliaceum</i>	wild proso millet
<i>Pennisetum setaceum</i>	crimson fountain grass
<i>Schismus arabicus</i>	schismus
<i>Schismus barbatus</i>	mediterranean grass
<i>Sorghum halepense</i>	johnsongrass
<i>Taeniatherum caput-medusae</i>	medusa-head
Forbs	
<i>Acroptilon repens</i>	Russian knapweed
<i>Anthemis arvensis</i>	scentless chamomile
<i>Anthemis cotula</i>	mayweed chamomile
<i>Arctium minus</i>	common burdock
<i>Bassia hyssopifolia</i>	bassia Basellaceae
<i>Brassica nigra</i>	black mustard
<i>Brassica tournefortii</i>	wild turnip
<i>Caesalpinia gilliesii</i>	Mexican bird-of-paradise
<i>Cardaria chalepensis</i>	lens-podded whitetop
<i>Cardaria draba</i>	hoary cress
<i>Cardaria pubescens</i>	hairy whitetop
<i>Carduus acanthoides</i>	plumeless thistle
<i>Carduus nutans</i>	musk thistle
<i>Carduus pycnocephalus</i>	Italian thistle
<i>Carduus teniflorus</i>	slender-flowered thistle
<i>Carpobrotus edulis</i>	hottentot fig
<i>Carpobrotus chilensis</i>	sea iceplant
<i>Carthamus lantus</i>	distaff thistle
<i>Carum carvi</i>	common caraway

<i>Centaurea calcitrapa</i>	purple starthistle
<i>Centaurea cyanus</i>	cornflower
<i>Centaurea diffusa</i>	diffuse knapweed
<i>Centaurea iberica</i>	Iberian starthistle
<i>Centaurea jacea</i>	brown knapweed
<i>Centaurea macrocephala</i>	bighead knapweed
<i>Centaurea maculosa</i>	spotted knapweed
<i>Centaurea melitenensis</i>	malta starthistle
<i>Centaurea montana</i>	mountain cornflower
<i>Centaurea nigra</i>	black knapweed
<i>Centaurea nigrescens</i>	Vochin knapweed
<i>Centaurea pratensis</i>	meadow knapweed
<i>Centaurea squarrosa</i>	squarrose knapweed
<i>Centaurea solstitialis</i>	yellow starthistle
<i>Centaurea trichocephala</i>	feather-headed knapweed
<i>Chondrilla juncea</i>	rush skeletonweed
<i>Chrysanthemum leucanthemum</i>	ox-eye daisy
<i>Cichorium intybus</i>	chicory
<i>Cirsium arvense</i>	Canada thistle
<i>Cirsium vulgare</i>	bull thistle
<i>Clematis orientalis</i>	Chinese clematis
<i>Conium maculatum</i>	poison hemlock
<i>Convolvulus arvensis</i>	field bindweed
<i>Crepis setosa</i>	bristly hawkweed
<i>Crupina vulgaris</i>	common crupina
<i>Cynara cardunculus</i>	artichoke thistle
<i>Cynoglossum officinale</i>	houndstongue
<i>Digitalis purpurea</i>	foxglove
<i>Dipsacus fullonum</i>	common teasel
<i>Echium vulgare</i>	blueweed
<i>Egeria densa</i>	Brazillian waterweed
<i>Eichhornia crassipes</i>	water hyacinth
<i>Erechtites glomerata</i>	Australian fireweed
<i>Euphorbia cyparissias</i>	cypress spurge
<i>Euphorbia esula</i>	leafy spurge
<i>Euphorbia myrsinites</i>	myrtle spurge
<i>Foeniculum vulgare</i>	fennel

<i>Galega officinalis</i>	goats rue
<i>Gypsophila paniculata</i>	babys breath
<i>Halogeton glomeratus</i>	halogeton
<i>Hesperis matronalis</i>	dames's rocket
<i>Hieracium aurantiacum</i>	orange hawkweed
<i>Hieracium pilosella</i>	mouseear hawkweed
<i>Hieracium pratense</i>	yellow hawkweed
<i>Hydrilla verticillata</i>	hydrilla
<i>Hyoscyamus niger</i>	black henbane
<i>Hypericum perforatum</i>	common St. Johnswort
<i>Hyposhaeris radicata</i>	common catsear
<i>Isatis tinctoria</i>	dyer's woad
<i>Knautia arvensis</i>	blue buttons
<i>Lathyrus latifolius</i>	everlasting peavine
<i>Lepidium latifolium</i>	perennial pepperweed
<i>Linaria genistifolia</i> spp. <i>dalmatica</i>	dalmation toadflax
<i>Linaria vulgaris</i>	yellow toadflax
<i>Lysimachia vulgaris</i>	garden loosestrife
<i>Lythrum salicaria</i>	purple loosestrife
<i>Lythrum virgatum</i>	wand loosestrife
<i>Madia sativa</i>	Chilean tarweed
<i>Myriophyllum spicatum</i>	Eurasian watermilfoil
<i>Onopordum acanthium</i>	Scotch thistle
<i>Onopordum taricum</i>	Scotch thistle
<i>Peganum harmala</i>	African rue
<i>Potentilla recta</i>	sulphur cinquefoil
<i>Salvia aethiopsis</i>	Mediterranean sage
<i>Saponaria officinalis</i>	bouncing bet
<i>Senecio jacobaea</i>	tansy ragwort
<i>Senecio mikanooides</i>	German ivy
<i>Solanum dulcamara</i>	bitter nightshade
<i>Sonchus arvensis</i>	perennial sowthistle
<i>Sphaerophysa salsula</i>	swainsonpea
<i>Tanacetum vulgare</i>	common tansy
<i>Zygophyllum fabago</i>	Syrian bean caper
Shrubs and Trees	
<i>Ailanthus altissima</i>	tree-of-heaven

<i>Alhagi pseudalhagi</i>	camelthorn
<i>Cytisus junceum</i>	Spanish broom
<i>Cytisus monspessulanas</i>	French broom
<i>Cytisus scoparius</i>	Scotch broom
<i>Cytisus striatus</i>	Portugese broom
<i>Elaeagnus angustifolia</i>	Russian olive
<i>Ficus carica</i>	edible fig
<i>Lespedeza cuneata</i>	Himalayan bush clover
<i>Retama monosperma</i>	bridal veil broom
<i>Rubus discolor</i>	Himalaya blackberry
<i>Schinus terebrinthifolius</i>	Brazillian pepper
<i>Tamarix aphylla</i>	athel
<i>Tamarix chinensis</i>	tamarisk
<i>Tamarix gallica</i>	French tamarisk
<i>Tamarix parviflora</i>	small flower tamerisk
<i>Tamarix pentanda</i>	tamarisk
<i>Tamarix ramosissima</i>	salt cedar
<i>Ulex europaeus</i>	gorse
<i>Ulmus pumila</i>	Siberian elm